ODS 266

OBSTRUCTION DATA SHEET

ODS 266
MISSOULA INTERNATIONAL AIRPORT
MISSOULA, MONTANA

DIGITIZED FROM

OC 266
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9TH EDITION

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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA Nr. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS (and OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)

2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

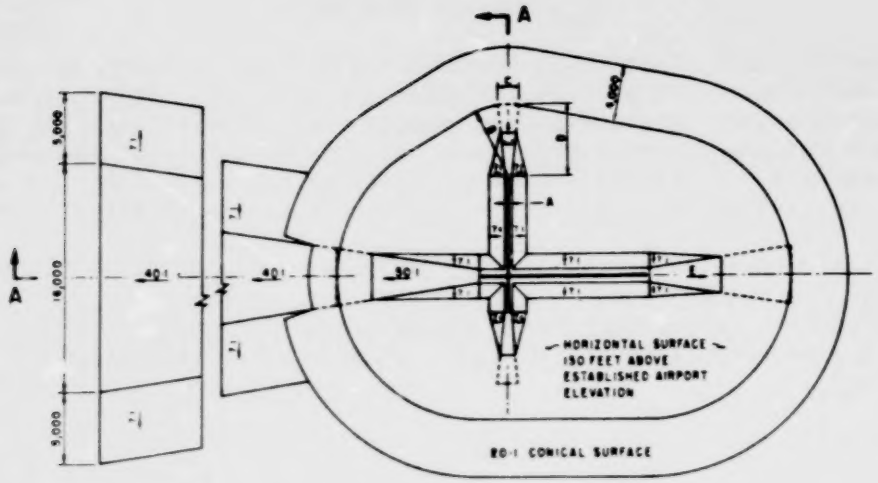
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows (see footnote 2 on page 3):

A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C .... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D .... Nonutility runway - nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC ... Supplemental C underlying a B(V)

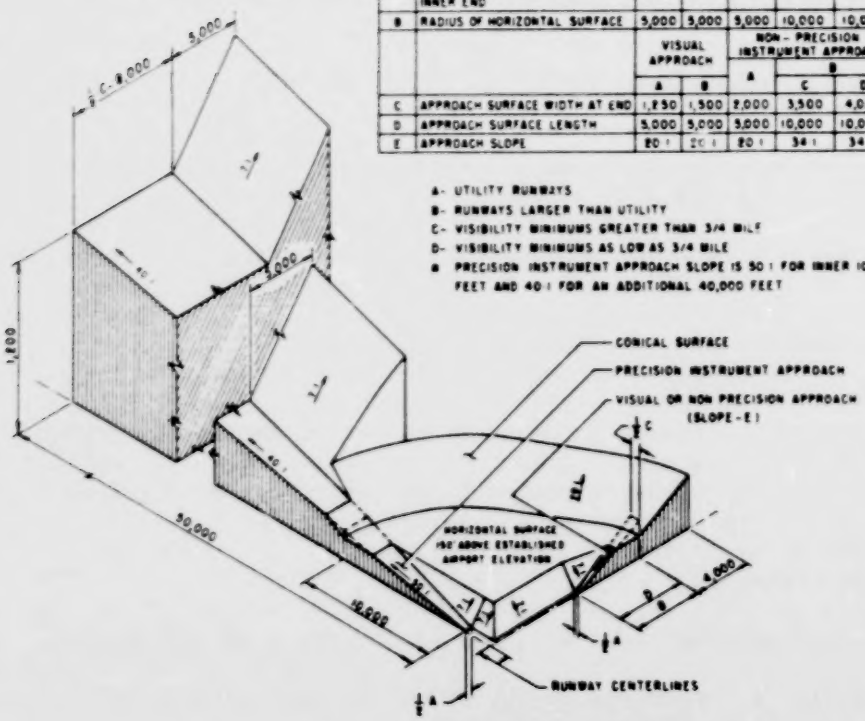
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
				A	B		
		A	B		C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X^{1}	X^{2} XXXX/XXXX^{3}	XXXXXX.XXX^{4}	XXXXXXX.XXX^{4}	XXXXXXX^{5}		XXXX/XXXX^{6}	XXXXXX.XXX^{7}	XXXXXXX.XXX^{7}					
OBJECT		LAT	LONG	A^{8}	ELEV^{9}	AGL^{10}	HAR^{11}	HAT^{11}	HAA^{11}	DEND^{12}	DTHR^{12}	DCLN^{12}	PNTR^{13}
XXXXXXXXXXX		XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX		XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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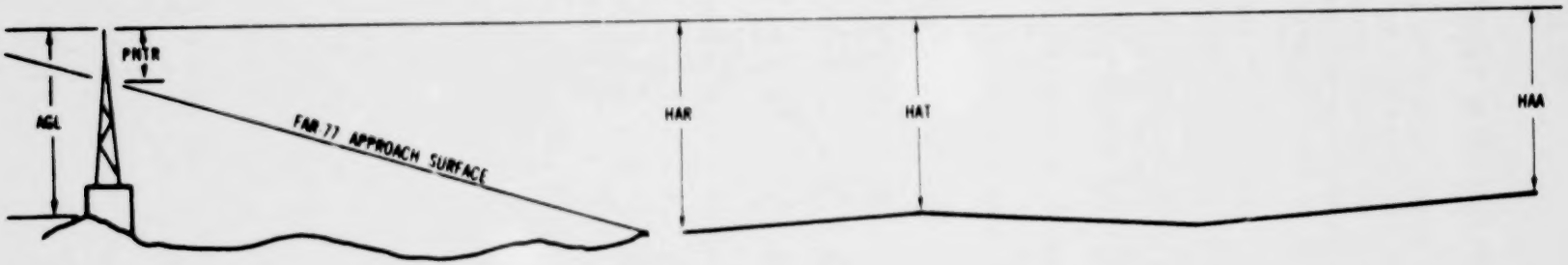
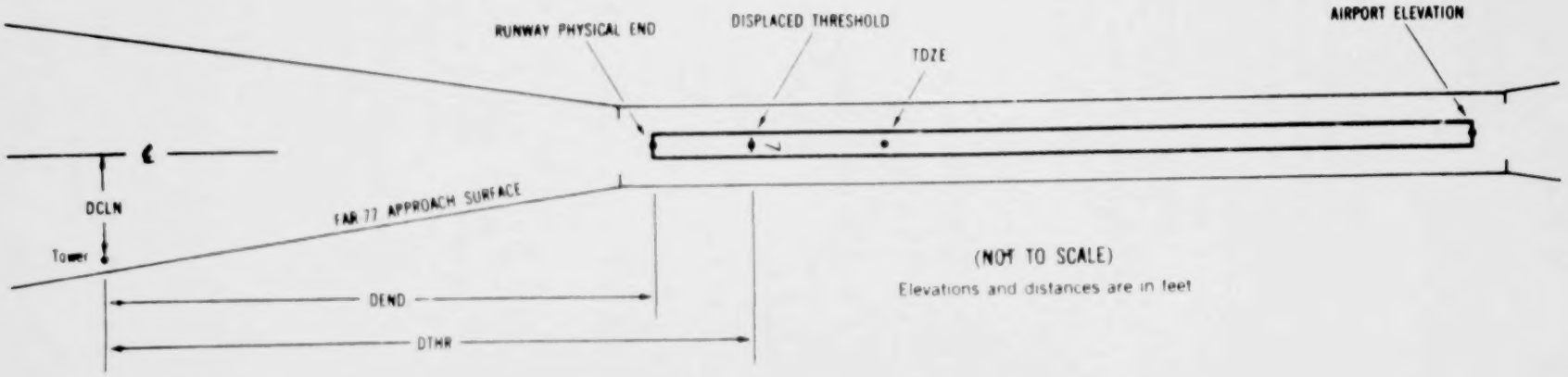




(NOT TO SCALE)

Elevations and distances are in feet

EXPLANATION OF FOOTNOTES

[1] Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary area of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

[2] For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)

[3] Reference runway approach physical end elevation/touchdown zone elevation

[4] Latitude and longitude of reference runway approach physical end

[5] Reference runway geodetic azimuth reckoned clockwise from south

[6] Reference runway displaced threshold elevation/touchdown zone elevation

[7] Latitude and longitude of reference runway displaced threshold

[8] Accuracy Code:

Horizontal	Vertical
1 = 20	A = 2
2 = 40	B = 5
	C = 20

[9] Mean Sea Level (MSL) elevation at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

[10] Height above ground level (AGL). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ±10 feet.

[11] HAA - Height above airport
HAR - Height above reference runway approach physical end
HAT - Height above reference runway touchdown zone elevation

[12] DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft.

A negative value for DEND or DTHR indicates object is in primary area on roll-out side of zero distance point.

[13] PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

OC0266

AIRPORT ELEVATION 3201

7 A(V) 3196/3196 465457.947N 1140544.369W 2691958

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	465457.50	1140555.26	1A	3203		7	7	2	756		37R	-21

25 A(V) 3201/3201 465458.472N 1140437.949W 0892047

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
OL POLE	465459.45	1140420.80	1A	3229		28	28	28	1192		85R	-22
OL POLE	465457.46	1140416.98	1A	3227		26	26	26	1454		119L	-37
POLE	465500.02	1140416.91	1A	3242		41	41	41	1463		140R	-22

11 PIR 3188/3196 465529.744N 1140620.174W 3102701

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	465424.96	1140440.22	1A	3210		22	14	9	-9539		491R	9
GROUND	465428.05	1140444.58	1A	3203		15	7	2	-9106		449R	3
OL ON MONITOR POLE	465447.47	1140502.19	1A	3202		14	6	1	-6698		254L	9
BUSH	465449.40	1140518.23	1A	3194		6	-2	-7	-5924		319R	2
OL ON MONITOR POLE	465511.38	1140543.27	1A	3202		14	6	1	-3156		247L	6
OL ON GLIDE SLOPE	465526.38	1140605.56	1A	3218		30	22	17	-993		399L	27
GROUND	465527.36	1140626.92	1A	3189		1	-7	-12	200		487R	1
SIGN	465534.54	1140618.24	1A	3192		4	-4	-9	213		457L	4
SIGN	465532.74	1140620.75	1A	3192		4	-4	-9	227		205L	3

OC0266

AIRPORT ELEVATION 3201

29 SUPLC 3201/3201 465428.911N 1140436.087W 1302817

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
SIGN	465534.54	1140618.24	1A	3192		-9	-9	-9	-9710		457R	4
GROUND	465527.36	1140626.92	1A	3189		-12	-12	-12	-9697		487L	1
OL ON GLIDE SLOPE	465526.38	1140605.56	1A	3218		17	17	17	-8504		399R	27
OL ON MONITOR POLE	465511.38	1140543.27	1A	3202		1	1	1	-6341		247R	6
BUSH	465449.40	1140518.23	1A	3194		-7	-7	-7	-3574		319L	2
OL ON MONITOR POLE	465447.47	1140502.19	1A	3202		1	1	1	-2599		254R	9
GROUND	465428.05	1140444.58	1A	3203		2	2	2	-392		449L	3
FENCE	465424.96	1140440.22	1A	3210		9	9	9	41		491L	9
OL ON LOCALIZER	465426.67	1140432.25	1A	3202		1	1	1	350		0R	-3
ANT ON BUILDING	465427.83	1140429.77	1A	3205		4	4	4	404		201R	-2
TREE	465419.93	1140407.81	1A	3243		42	42	42	2084		582R	-13

OC0266

AIRPORT ELEVATION 3201

ARP 465458.965N 1140522.578W

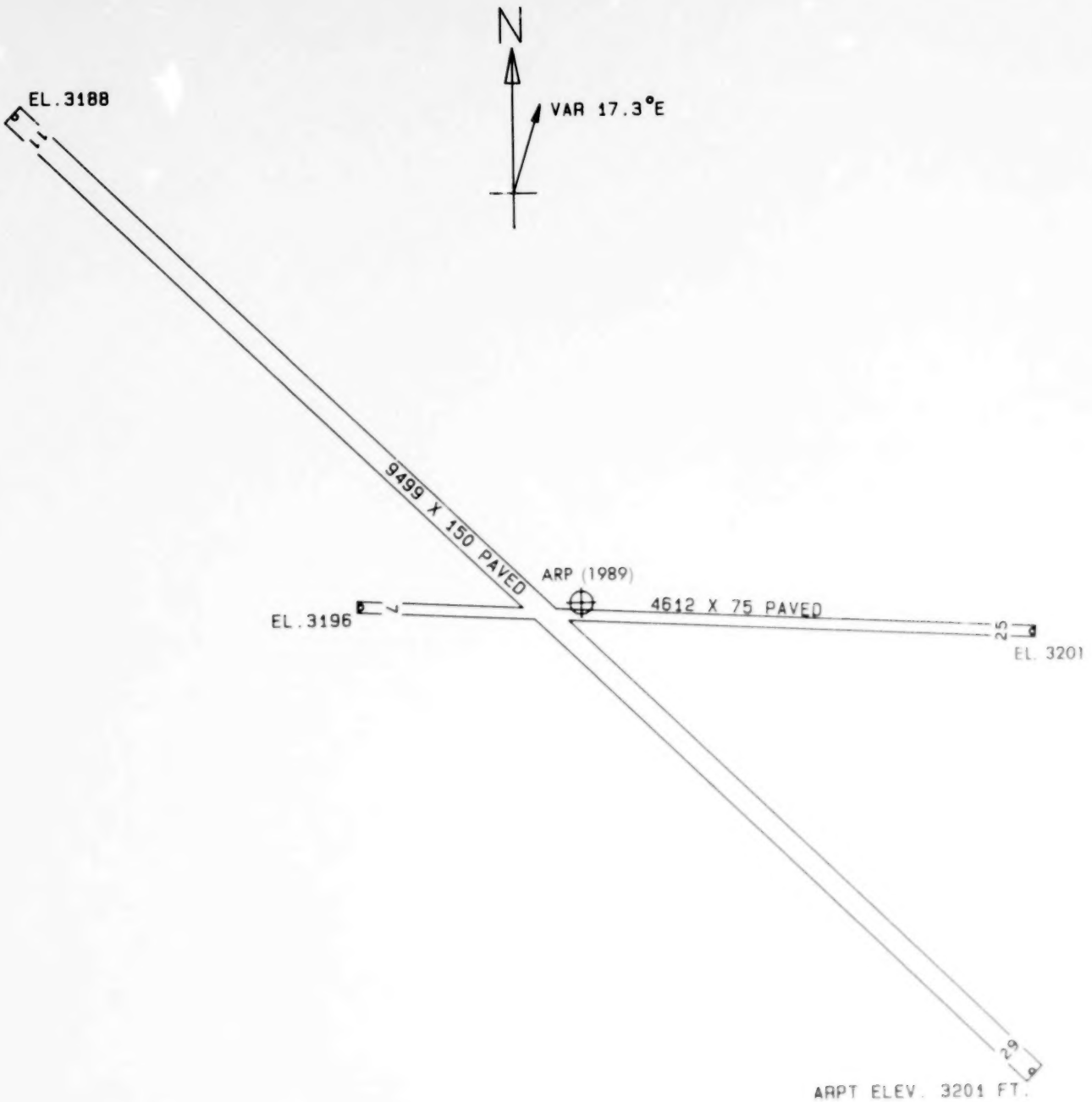
OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
OL ON ANEMOMETER	465454.56	1140502.22	1A	3215		14	90 13	1482
OL ON LIGHTED WINDSOCK	465453.40	1140501.26	1A	3221		20	93 34	1584
OL ON ANEMOMETER	465514.36	1140533.88	1A	3230		29	315 59	1746
ANT AND APT BN ON OL CT T	465507.26	1140457.76	1A	3295		94	46 41	1917
FENCE	465455.19	1140550.66	1A	3202		1	241 36	1987
ANT ON OL TOWER	465449.34	1140451.78	1A	3244		43	97 12	2350
OL ON FLOODLIGHT	465503.43	1140440.35	1A	3259		57	63 55	2967
OL ON HANGAR	465501.60	1140434.74	1A	3233		32	68 5	3332
OL VORTAC	465428.98	1140457.71	1A	3237		36	133 5	3495
POLE	465501.72	1140424.69	1A	3239		38	68 44	4028
GROUND	465552.21	1140423.06	1B	3464		263	20 9	6795
POLE	465606.98	1140521.23	1B	3357		156	343 29	6891
BUSH	465613.09	1140509.15	1B	3372		171	349 47	7568
TANK	465621.30	1140515.78	1B	3472		271	345 56	8355
GROUND	465617.76	1140441.14	1B	3656		455	2 31	8485
GROUND	465543.07	1140338.07	1B	3740		539	41 4	8520
GROUND	465623.61	1140500.42	1B	3585		384	352 52	8712
GROUND	465541.91	1140305.20	1B	3872		671	48 10	10482
POLE	465643.10	1140504.86	1B	3438		237	349 21	10622
GROUND	465636.86	1140423.26	2C	3876		675	5 14	10739
GROUND	465527.65	1140251.69	1B	3853		652	57 11	10870
OL ON NONDIRECTIONAL BN T	465617.75	1140708.95	1A	3320		119	299 57	10873
TREE	465649.73	1140542.58	1B	3390		189	335 39	11308
POLE	465516.58	1140240.78	1B	3701		500	63 39	11373
TREE	465653.76	1140520.00	1B	3428		227	343 35	11632
POLE	465515.77	1140235.18	1B	3693		492	64 21	11745
GROUND	465648.15	1140624.02	1B	3457		256	321 37	11855
GROUND	465509.90	1140231.42	1B	3572		371	67 21	11934
TREE	465701.13	1140525.13	2C	3428		227	341 53	12378
GROUND	465616.06	1140301.93	2C	4110		909	34 1	12503
TREE	465704.32	1140512.17	2C	3450		249	345 57	12721
TREE	465637.79	1140314.12	2C	4385		1184	24 22	13406
GROUND	465713.77	1140530.50	2C	3604		403	340 24	13669

OC0266 File Continued from Previous Page

AIRPORT ELEVATION 3201

ARP 465458.965N 1140522.578W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
TREE	465720.74	1140507.99	2C	3498		297	346 44	14399
TREE	465731.40	1140443.17	2C	3569		368	352 44	15684
GROUND	465503.40	1140127.39	2C	3724		523	71 6	16333



TOUCHDOWN ZONE RUNWAY	ELEVATION
7	3196
25	3201
11	3196
29	3201

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MISSOULA, MONTANA

(NOT TO SCALE)